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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,917	07/21/2003	Kent Lindow		5368

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EXAMINER	
KEELER, KIMBERLY A	

ART UNIT	PAPER NUMBER
1723	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/623,917	LINDOW, KENT	
	Examiner	Art Unit	
	Kimberly Keeler	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/21/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claim 1 part c, specifically stating, "a fuel inlet, said fuel inlet communicating with a fuel transmission conduit, said fuel transmission conduit having an inlet and an outlet, said inlet communicating with said fuel inlet, said outlet of said fuel transmission conduit angularly directing fuel against said bifurcating plate, causing contaminant separation of the fuel", it is unclear as to which inlet and outlet are being claimed, the inlet and outlet to the body or the inlet and outlet to the fuel transmission conduit.

3. Claim 1 recites the limitation "fuel exit" in part f, line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Coale (U.S. Patent No. 5,534,138).

3. Regarding claim 1 part b, specifically stating, "said hollow cylindrically shaped body having a first internally threaded boss, or priming inlet, a second internally threaded boss, or collecting sump exit, a third internally threaded boss, or fuel inlet, a fourth internally threaded boss, or fuel outlet, a fifth internally threaded boss or heating connector means, said priming inlet being located on said apex of said top cap, said collecting sump exit being located on said bottom of said bottom cap, said fuel inlet, said fuel outlet, and said heating connector means being located on an exterior surface of said hollow cylindrically shaped body", it is unclear whether applicant wanted to claim a first internally threaded boss, or priming inlet, a second internally threaded boss, or collecting sump exit, a third internally threaded boss, or fuel inlet, a fourth internally threaded boss, or fuel outlet, a fifth internally threaded boss or heating connector means. For examination purposes, a first, second, third, fourth, and fifth internally threaded bosses were deemed appropriate.

4. Regarding claim 1 part c, specifically stating, "said priming inlet having a priming means or air bleed means" and "said collecting sump exit having a drainage valve", it is unclear from applicant's claim 1 part b as discussed above if the priming inlet and collecting sump exit were indeed claimed. For examination purposes, first and second internally threaded bosses were deemed appropriate.

5. As to claim 1, Coale ('138) teaches a fuel purifier comprising: a hollow cylindrically shaped body (2) having a top cap and a bottom cap, the top cap and the bottom cap being attached to the hollow cylindrically shaped body, said top cap having an apex, and said bottom cap having a bottom; said hollow cylindrically shaped body having a first internally threaded boss (40), or priming inlet, a second internally threaded boss (50), or collecting sump exit, a third internally threaded boss (20), or fuel inlet, a fourth internally threaded boss (30), or fuel outlet, a fifth internally threaded boss (60) or heating connector means, said priming inlet being located on said apex of said top cap, said collecting sump exit being located on said bottom of said bottom cap, said fuel inlet, said fuel outlet, and said heating connector means being located on an exterior surface of said hollow cylindrically shaped body; said priming inlet having a priming means or air bleed means threadably attached thereto, said collecting sump exit having a drainage valve means threadably attached thereto; a bifurcating plate (150,160), said bifurcating plate being attached to an interior surface of said hollow cylindrically shaped body; a fuel inlet (20), said fuel inlet communicating with a fuel transmission conduit (Fig. 5), said fuel transmission conduit having an inlet and an outlet, said inlet communicating with said fuel inlet, said outlet of said fuel transmission conduit angularly directing fuel against said bifurcating plate, causing contaminant separation of the fuel; said bifurcating plate creating a first chamber and a second chamber, said first chamber being located in the proximity of said fuel inlet, and said second chamber being located in the proximity of said fuel exit; a first separating means (130) being positionally fixed towards a bottom of said hollow cylindrically shaped body and located in said second

chamber of said hollow cylindrically shaped body, a second separating means (140) being positionally fixed towards said bottom of said hollow cylindrically shaped body and being located in said first chamber of said hollow cylindrically shaped body; a first separator plate (110), said first separator plate being attached to said interior surface of said hollow cylindrically shaped body and being located in said first chamber, said first separator plate creating an upper inlet portion and a lower inlet portion, said first separator plate additionally having holes (80) defined therein allowing communication between said upper inlet portion and said lower inlet portion; and an angled collecting plate (170), said angled collecting plate being located in said second chamber, said angled collecting plate being attached to said interior surface of said hollow cylindrically shaped body and said bifurcating plate, said angled collecting plate having an upper edge, said upper edge being positioned towards an upper portion of said bifurcating plate and directing fuel towards said outlet of said hollow cylindrically shaped body.

6. As to claim 3, Coale ('138) teaches a fuel purifier wherein said priming means is a stop cock as shown in Figure 5.

7. As to claim 4, Coale ('138) teaches a fuel purifier wherein said drainage valve means is a stop cock as shown in Figure 5.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeh (U.S. Patent No. 5,866,000) in view of Coale (U.S. Patent No. 5,534,138).

11. As to claim 1, Yeh ('000) teaches a fuel purifier comprising: a hollow cylindrically shaped body (12) having a top cap (14) and a bottom cap (32), the top cap and the bottom cap being attached to the hollow cylindrically shaped body, said top cap having an apex, and said bottom cap having a bottom; said hollow cylindrically shaped body having a first boss (Fig. 4, 22), a second (Fig. 4,36), a third boss (Fig. 4,20), a fourth boss (Fig. 4,20), a fifth boss (Fig. 4,20) said first boss being located on said apex of said top cap, said second boss being located on said bottom of said bottom cap, said third boss, said fourth boss, and said fifth boss being located on an exterior surface of said hollow cylindrically shaped body; said first boss/priming inlet having a priming means attached thereto, said second boss/collecting sump exit having a drainage valve means attached thereto see figures 1 and 4; a bifurcating plate (30), said bifurcating plate being attached to an interior surface of said hollow cylindrically shaped body; a fuel inlet (FL),

said fuel inlet communicating with a fuel transmission conduit (20), said fuel transmission conduit having an inlet and an outlet, said inlet communicating with said fuel inlet, said outlet of said fuel transmission conduit angularly directing fuel against said bifurcating plate (Fig. 4), causing contaminant separation of the fuel; said bifurcating plate creating a first chamber and a second chamber, said first chamber being located in the proximity of said fuel inlet, and said second chamber being located in the proximity of said fuel exit; a first separating means (18) being positionally fixed towards a bottom of said hollow cylindrically shaped body and located in said second chamber of said hollow cylindrically shaped body, a second separating means (Fig.4, 30;middle plate) being positionally fixed towards said bottom of said hollow cylindrically shaped body and being located in said first chamber of said hollow cylindrically shaped body; a first separator plate (Fig.4, 30;upper plate), said first separator plate being attached to said interior surface of said hollow cylindrically shaped body and being located in said first chamber, said first separator plate creating an upper inlet portion and a lower inlet portion, said first separator plate additionally having holes (30b) defined therein allowing communication between said upper inlet portion and said lower inlet portion; and an angled collecting plate (24a), said angled collecting plate being located in said second chamber, said angled collecting plate being attached to said interior surface of said hollow cylindrically shaped body and said bifurcating plate, said angled collecting plate having an upper edge, said upper edge being positioned towards an upper portion of said bifurcating plate and directing fuel towards said outlet of said hollow cylindrically shaped body. It in noted to applicant that the angled collecting plate

is an inherent feature of Yeh because the randomly aligned fibers of the outer layers and loosely packed vertically aligned fibers described in column 6 lines 58-62 and shown in figure 3, must have a support plate, baffle, screen, or netting to maintain the structure of the fibers. See Stone (U.S. Patent No. 4,668,393) wherein Stone also teaches a spirally wrapped media that utilizes a baffle (44) to maintain its structure. Finally, Yeh is silent to the specific connections the bosses use, such as, internally threaded. However, Coale ('138) also teaches a fuel separator and further teaches a plurality of internally threaded bosses as shown in figure 2, elements 20, 30, 40, 50, 60, and 70. It is considered to have been obvious to one of ordinary skill in the art to modify Yeh's bosses to include internal threads for connecting the inlet, outlet, and sump conduits because as shown by Coale having internal threads is an easy and conventional method of attaching conduits, accessories, etc. to the filter housing.

12. As to claim 2, Yeh (000) and Coale ('138) teach the fuel purifier as claimed and Yeh further teaches the said first separating means (18) being a first perforated plate, said perforated plate having holes defined therein, said holes allowing fuel flow therethrough, and a means for contaminants to collect and eventually settle towards said bottom of said bottom cap (32) and to be removed through said collecting sump exit (36); and said second separating means (Fig. 4, 30) being a second perforated plate, said perforated plate having holes defined therein, said holes allowing fuel flow therethrough, and a means for contaminants to collect and eventually settle towards said bottom of said bottom cap and to be removed through said collecting sump exit as shown in Figure 4, which meet's applicant's claim.

13. As to claim 5, Yeh ('000) and Coale ('138) teach the fuel purifier with a first and second separating means comprising a perforated plate with holes, yet are silent to the exact dimensions of the holes in the perforated plates (18, 30), specifically having a diametrical formula that is a ratio of the tubular body diameter, said ratio being between four percent and seven and one half percent. It is noted that both Yeh's and Coale's inventions are separating liquid/liquid mixtures similar to the applicant's fluid setting. It is considered to have been obvious to one of ordinary skill in the art to fabricate Yeh's perforated plates with holes meeting applicant's diametrical formula because Yeh's liquid/liquid separation apparatus, wherein the plate holes pass contaminants to the bottom cap, is equivalent to applicant's apparatus, therefore the hole dimensions must meet the diametric formula to be functional in the same liquid/liquid separation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Keeler whose telephone number is 571-272-2460. The examiner can normally be reached on Monday-Friday 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kak
5/5/05

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